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SPECIFICATION FOR VERTICAL STEEL LADDERS

(Third Reprint MARCH 1986)

UDC 629.12.011.57[669.14]

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INDIAN STANDARDS INSTITUTION
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NEW DELHI 110002

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October 1976

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SPECIFICATION FOR VERTICAL STEEL LADDERS

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SPECIFICATION FOR VERTICAL STEEL LADDERS

0. FOREWORD

0.1 This Indian Standard was adopted by the Indian Standards Institution on 31 August 1976, after the draft finalized by the Shipbuilding Sectional Committee had been approved by the Marine, Cargo Movement and Packaging Division Council.

0.2 Vertical steel ladders are used on ships for access to small holds, between deck spaces, masts, kingposts, funnels, trunks, deck-house tops and maintenance platforms.

0.3 Ladders made according to this standard will help to maintain uniformity, inter-changeability and easily availability to ship builders and ship repairers.

0.4 For the preparation of this standard, considerable assistance has been derived from ISO/DIS 3797 — 'Shipbuilding — Vertical steel ladders', issued by International Organization for Standardization.

0.5 For the purpose of deciding whether a particular requirement of this standard is complied with, the final value, observed or calculated, expressing the result of a test, shall be rounded off in accordance with IS : 2-1960*. The number of significant places retained in the rounded off value should be the same as that of the specified value in this standard.

1. SCOPE

1.1 This standard specifies the material and dimensions for vertical steel ladders used in ships.

2. TERMINOLOGY

2.0 For the purpose of this standard the following definitions shall apply.

2.1 Nominal Size — The nominal size of the steel ladder is the distance between the stringers of the ladder, marked as 'N', as shown in Fig. 1.

2.2 Nomenclature — The nomenclature for ladder shall be as shown in Fig. 1.

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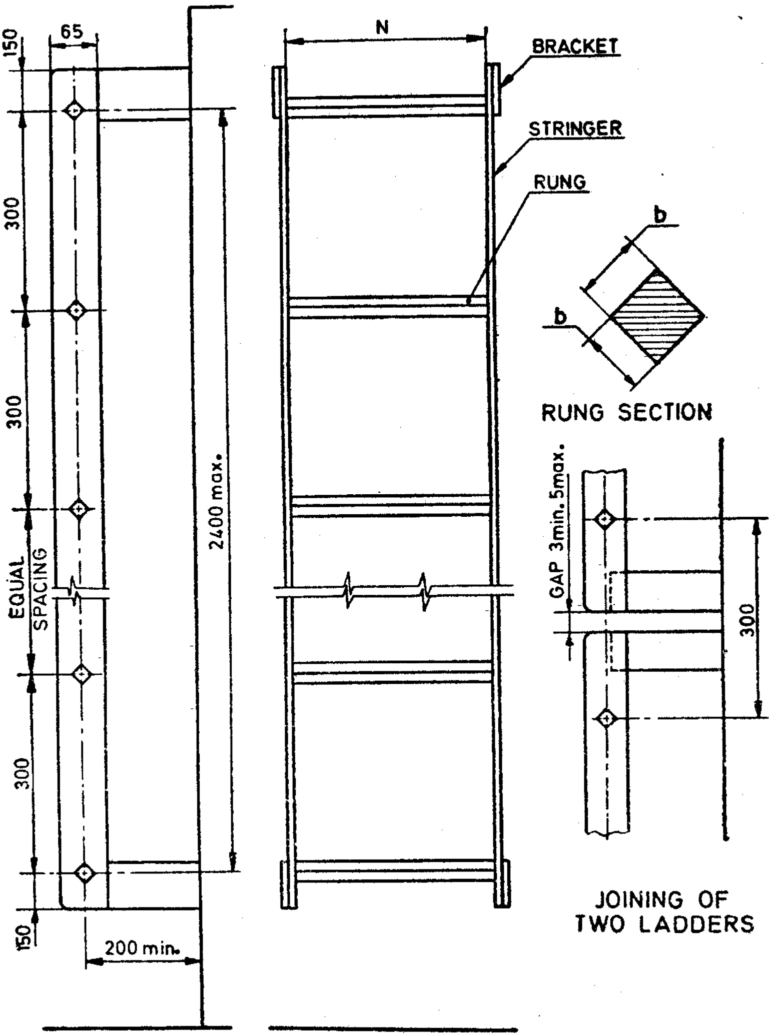
*Rules for rounding off numerical values (*revised*).



Nominal Size *N*	Rung Size *b*
300	20
400	22

All dimensions in millimetres.

FIG. 1 LADDER WIDTH AND RUNG SIZE

3. CONSTRUCTION

3.1 The ladder shall be firmly connected to brackets welded to the deck or other places.

3.2 The rungs shall be welded to the stringers.

3.3 The length of ladder between brackets shall not exceed 2 400 mm so that vibration is reduced to a practical minimum.

3.4 Ladders shall be free from defects likely to cause injury to persons using the ladders. Stringers shall not have sharp edges.

3.5 Welding shall be in accordance with IS : 816-1969*.

4. MATERIAL

4.1 The material used for the various parts of the ladder shall be as specified in IS : 226-1975† or IS : 3039-1965‡.

5. DIMENSIONS

5.1 The dimensions of the ladders shall be as shown in Fig. 1.

5.2 The thickness of the stringer shall be 10 mm.

6. TOLERANCE

6.1 The vertical distance between any two steps shall not vary by more than ±5 mm.

7. DESIGNATION

7.1 Vertical steel ladders shall be designated by its name, nominal size and the number of this standard.

Example:

Vertical steel ladder of nominal size 400 shall be designated as:

Vertical steel ladder 400 IS : 8172

8. MARKING

8.1 Steel ladder shall be marked with the manufacturer's trade-mark or identification mark and the nominal size of the ladder. The marking shall be on the outer face of one of the stringers.

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*Code of practice for use of metal arc welding for general construction in mild steel (*first revision*).

†Specification for structural steel (standard quality) (*fifth revision*).

‡Specification for structural steel (shipbuilding quality).

8.1.1 Vertical steel ladder may also be marked with the ISI Certification Mark.

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